

**Amendment to the Claims:**

1-2. (Cancelled)

3. (Currently Amended) The method as claimed in ~~claim 5~~  
claim 20, further including:

filling the histogram with measurement data from a time window  
advancing in real time with selectable fixed length.

4. (Currently Amended) A method as claimed in ~~claim 2~~  
claim 20, wherein, during the conversion, the computer generates aids for the  
retrospective analysis of the histogram[[s]] in the form of selectable functions that can  
be displayed on a viewing screen and outputs them together with the converted data  
combined as picture signals.

5-11. (Cancelled)

12. (Previously Presented) A medical monitoring device,  
comprising:

a display device for automatically displaying medical measurement  
data; and

a computer programmed to perform the steps of:

receiving medical measurement data from a sensor  
device;

in real time, converting the medical measurement data  
into a histogram including a series of medical measurement values;

combining the series of medical measurement values of  
the histogram into a cumulative curve;

controlling the display device to display the the  
cumulative curve superimposed on the histogram.

13. (Cancelled)

14. (Currently Amended) The medical monitoring device as claimed in ~~claim 15~~ claim 28, further comprising the computer ~~[[means]]~~ further being programmed for generating retrospective analysis aids including at least one of:

an inop bin ~~[[for]]~~ displaying times of invalid or out of action measurement data;

a deviation readout;

a direction-change indicator;

a histogram snapshot and trends aid; and

a combination of a plurality of histograms.

15. (Cancelled)

16. (Currently Amended) The medical monitoring device as claimed in ~~claim 15~~ claim 28, further comprising an alarm indicator that is triggered when a measurement of histogram data is measured above or below a lower or upper alarm limit level.

17. (Currently Amended) The medical monitoring device as claimed in ~~claim 15~~ claim 28, wherein the histogram data is binned into histogram bins, the histogram bin size being definable by the user.

18. (Currently Amended) The medical monitoring device as claimed in ~~claim 15~~ further comprising display means for displaying claim 28, wherein the display further displays real-time signal patterns of the medical measurement data concurrently with the superimposed histogram values and cumulative curve.

19. (Cancelled)

20. (Currently Amended) ~~[[The]]~~ A method as claimed in claim 5 further including: of automatically displaying medical measurement data in which a computer:

receives the medical measurement data.

automatically converts in real time the received measurement data into data for a histogram including updating the histogram in real time.

during the conversion, generates a cumulative curve indicative of the medical measurement data the cumulative curve being cumulative of the series of histogram values, and

displaying—displays the histogram with the cumulative curve superimposed, the histogram and the cumulative curve having common axes and a common scales.

21. (Previously Presented) The method as claimed in claim 4, wherein the retrospective analysis aids include at least one of:

a cumulative curve cursor for determining a percentage of time that histogram values are below a current cumulative cursor position;

range-selection cursors for determining a percentage of time that histogram values are within limits defined by the range-selection cursors;

a variability/stability readout that provides information about variability of the measurement data; and

a deviation and direction-change readout that shows deviation from a mean histogram value and a direction of measurement data change.

22. (Currently Amended) A computer readable medium storing a computer program for controlling a computer to perform the method of:

receiving medical measurement data;

converting in real time the received measurement data into data for a histogram including a continuously updated series of histogram values;

during the conversion, generating a cumulative curve indicative of the medical measurement data, the cumulative curve being cumulative of the series of histogram values; and,

~~outputs—outputting~~ the cumulative curve superimposed on the histogram as picture signals.

23. (Cancelled)

24. (Previously Presented) The medical monitoring device as claimed in claim 12, wherein the histogram and the cumulative curve are displayed with common axes and scales

25. (Currently Amended) The medical monitoring device as claimed in ~~claim 15~~ claim 28, wherein the histogram data includes a series of medical measurement values and the cumulative curve includes a sum of the medical measurement values.

26. (Currently Amended) The medical monitoring device as claimed in ~~claim 25~~ claim 28, wherein the histogram and the cumulative curve are displayed superimposed with common axes and scales.

27. (Currently Amended) The method as set forth in ~~claim 5~~ claim 20, further including:

displaying the histogram values as histogram columns and the cumulative curve is displayed as a curve superimposed on the histogram columns.

28. (Currently Amended) ~~[[The]]~~ A medical monitoring device as ~~claimed in claim 15, wherein the~~ comprising:

computer programmed for:

receiving medical measurement data,

automatically converting the medical measurement data into histogram data as the computer receives the medical measurement data,

generating a cumulative curve as the medical measurement data is received; and

a display device [[is]] controlled to display the cumulative curve superimposed on the histogram data as the medical measurement data is received.